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16. RECORD OF BANDED LEOPARD BLOWFISH *AROTHRON LEOPARDUS* (DAY, 1878) (TETRAODONTIFORMES: TETRAODONTIDAE) FROM MUVATTUPUZHA RIVER, KERALA, INDIA

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Introduction

Puffer fishes are circumglobal in tropical and temperate waters (Talwar and Jhingran 1991). Most species are marine, but several enter estuaries and some live only in freshwater. *Carinotetraodon travancoricus*, the only freshwater pufferfish endemic to Kerala, was described first from Pampa river, Kerala (Hora and Nair 1941). It was later reported from the Nilgiri Biosphere Reserve in the Kerala part of Western Ghats (Easa and Shaji 1997), Mavincar in South Canara, Karnataka (Remadevi *et al.* 2000), and Muvattupuzha, Periyar, and Chalakkudy rivers of Kerala (Jameela Beevi and Ramachandran 2009). *Chelonodon patoca* belonging to the family Tetraodontidae was reported from Aghnashini river in Kritikada, Karnataka, and from Payaswani river at Eranchipuzha in Kasargod district, Kerala (Arunachalam *et al.* 1999, 2009). Recent studies of Zeena and Jameela Beevi (in press), reported the presence of *Tetraodon fluviatilis*, the Green Pufferfish from Muvattupuzha river, Kerala.

Banded Leopard Blowfish *Arothron leopardus* (Family Tetraodontidae) were recorded from the Muvattupuzha river while conducting ichthyofaunal studies from August 2010 to August 2011. According to Day (1878), *A. leopardus* occurs in the seas of India. It has also been reported from seas of India (Day 1878), Pulicat Lake (Raj *et al.* 2002), Chennai coast (Ramesh *et al.* 2008), southwest coast of India (Biju Kumar and Deepthi 2009) and Ayiramthengu, Kollam (Balasubramanian and Ajmal 2004). In addition to the report of this species from Ayiramthengu (Balasubramanian and Ajmal 2004), the occurrence of *A. leopardus* in Muvattupuzha river is an additional locality for Kerala and extends its range to the freshwater systems of Kerala.

Table 1: Biometrics of *Arothron leopardus* n=20 (in mm)

Morphometrics	Min.	Max.	Mean	S.D.
Standard length				
%SL	70	143		
Body depth	32.2	41.2	36.6	2.8
Head length	33.6	38.1	35.8	1.9
Predorsal length	68.5	77.3	72.9	2.8
Dorsal fin length	17.2	20.6	19.1	1.1
Pectoral fin length	12.6	16.5	14.7	1.3
Anal fin length	15.8	18.8	17.4	1.1
Caudal fin length	24.5	29	26.9	1.8
% HL				
Snout length	40	46.3	43.6	2.2
Eye diametre	20.8	36	26.4	5.0
Interorbital distance	44	52.1	49.0	3.0
Meristic counts				
Dorsal fin rays	11			
Pectoral fin rays	18			
Anal fin rays	9			
Caudal fin rays	11			

Twenty specimens of the species were collected from two sites, Palamkadavu and Thattaveli, in Muvattupuzha river (9° 47' 00" N; 76° 21' 00" E), in Kottayam district of Kerala by using hook and line, and drag net. The specimens were fixed in 10% formalin and preserved in alcohol. The biometrics were measured using a metre scale and divider (Table 1) as per Jayaram (1999), and identification was based on Day (1878) and Nelson (2006). The morphometric characters of the specimens are discussed below.

The body is elongated and arched dorsally: ventrally flat. Depth of the body is 32.2–41.2% SL (Standard Length). Head is broad and its length is 33.6–38.1% SL. Mouth is terminal and jaws with a median suture. Gill openings are narrow and ending before the middle of pectoral fin base. Eyes are large, dorsolateral in position and situated slightly anterior to the middle of the head length. Interorbital distance is broad. Eye diameter (ED) is 20.8–36% HL (Head Length). Nasal organ is in the form of two elongated raised flaps and very close to the eyes. Snout length (Sn L) is 40–46.3% HL. Dermal spines are concealed in the skin.

Dorsal fin is rounded and is situated in the last third of the distance between the front edge of the eyes and caudal peduncle. Its length is 17.2–20.6% SL. Pectoral fin is fan-like and placed in the middle of the body. Its length is 12.6–16.5% SL. Anal fin is round, 15.8–18.8% SL and placed opposite to the dorsal fin. Caudal fin is truncate and its length 24.5–29% SL.

There are three narrow cross bands across the body. The one over the head is V-shaped with a light interorbital band posterior to it. The second is in the space between the pectoral fin, on either side. The posterior band is placed slightly ahead of the dorsal fin origin. On the dorsal side, two lines are prominent, which start from the snout, lie under the eyes on both sides and curve upwards above the pectoral fin, extending backwards along dorsal side. In the region below the dorsal fin origin, it is again curved downwards toward the anal fin and ends at the caudal fin base. These lines are interconnected at the snout region. Lines are not continuous and prominent on the ventral side. Inconspicuous lines are present around the eyes, which are connected by an interlink at the nape.

The body is olive superiorly and it extends to two thirds of the distance down the sides. Ventrally, it is white. Numerous fluorescent yellow spots are distributed in the body from the snout to the caudal fin except the region below the level of pectoral fin. Spots are varied in size. 4–5 vertical rows of spots are present on the caudal fin.

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